## California Environmental Protection Agency

O Air Resources Board

FORD MOTOR COMPANY

Executive Order: A-010-1986

New Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles

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Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC), Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: The following exhaust and evaporative emission control systems produced by the manufacturer are certified as described below. Production vehicles shall be in all material respects the same as those for which certification is granted.

					TEST GROU	P IN	FORMAT	ION					
MODE	_	TEST GROUP			VEHICLE CLASS(ES)			FUEL CATEGORY			FUEL TYPE		
2017	17 HFMXT03.55HW		MDPV			DEDICATED SINGLE FUEL VEHICLE			GASOLINE				
USEFUL LIFE (miles)				VE	VEHICLE EMISSION CATEGOR			RY INTERIM / INTER			ERMEDIA	RMEDIATE IN-USE STD	
EXH/ORVR			EVAP		FTP			SFTP		FTP		SFTP	
120000 15000		150000	COUNT	TIER2 BIN8 ED AS ARB *		2	*		*				
SPE	CIAL F	EATUR		IAUST EMISSI TEMS	ON CONTROL			OBD ST	ATUS	-	ENGINE	DISPLACEMENT (L)	
1	217	7C, 2W	2WR-HO2S, 2HO2S, 2TC, CAC, DFI				FUL	L	*				
*		*				PART	PARTIAL ALL MODELS RTIAL WITH *		3.5				
*		-	*										
			EV	APORATIVE &	REFUELING (	EVAF	P/ORVR)	FAMILY	INFO	RMATION			
EVAP / ORVR FAMILY EVAPO				EVAPORATIV	PRATIVE STD CATEGORY			EVAP EMISSION STD VEHICLE CLASS		SPECIAL FEATURES			
HFMXR0190NBD			I	LEV 2			MDV4				*		
					EMISSION CRI	EDIT	INFORM	ATION					
				-	NMOG CREDIT FOR NMOG CR				EDIT FOR OPTIONAL EXH				
BASELINE PZEV AT PZE				PZEV	TZEV	NOI	NON-PZEV ZERO-EVA		/AP	P DOR		TRUCKS	
* *				*	*		N			N		N	
				NMO	S AND FLEET	AVEF	RAGE IN	ORMAT	ION				
NMOG RAF	CH4 RAF	NINAL METALLINE		HCHO/NMHC RATIO			00 GVW)	TD NMOG+NOX FLEET ST VW) MDV (8501-10000 GVW) (g/mi)					
*	*		1.04	*	0.101					*		*	

See the Attachment for Vehicle Models, Evaporative Family, Engine Displacement, Emission Control Systems, Phase-In Standards, OBD Compliance, Emission Standards and Certification Levels, and Abbreviations.

### BE IT FURTHER RESOLVED:

The exhaust and evaporative emission standards and the certification emission levels for the listed vehicles are as listed on the Attachment. Compliance with the 50° Fahrenheit testing requirement may have been met based on the manufacturer's submitted compliance plan in lieu of testing. Any debit in the manufacturer's NMOG+NOx and greenhouse gas Fleet Average (PC or LDT or MDPV) or "Vehicle Equivalent Credit" (MDV) compliance plan shall be equalized as required.

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For the listed vehicle models, the manufacturer has attested to compliance with Title 13, California Code of Regulations, (13 CCR) Sections 1965 [emission control labels], 1968.2 [on-board diagnostic, full or partial compliance], 2035 et seq. [emission control warranty], 2235 [fuel tank fill pipes and openings] (gasoline and alcohol fueled vehicles only), and "High-Altitude Requirements" and "Inspection and Maintenance Emission Standards" (California 2015 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for PC, LDT and MDV).

#### BE IT FURTHER RESOLVED:

The listed vehicle models are federally certified, and are certified under the provisions of 13 CCR Section 1961.2(a)(12) and the incorporated test procedures.

Vehicles certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this \_\_\_\_\_\_ day of July 2016.

Annette Hebert, Chief

Emissions Compliance, Automotive Regulations and Science Division

OB Air Resources Board

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## **ATTACHMENT**

EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS.
EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS (FTP. HWFET, 50°F, 20°F)

CH4: methane; NMOG: non-CH4 organic gas; HC: hydrocarbon; NMHC: non-CH4 HC; CO: carbon monoxide; NOx: oxides of nitrogen; HCHO: formaldehyde; PM: particulate matter, RAF: reactivity adjustment factor; 2DHS/3DHS [g HC/test]: 2/3 days diurnal+hot-soak; RL [g HC/mi]: running loss; ORVR [q HC/qallon dispensed]: on-board refueling vapor recovery; g: gram; mg: milligram; mi: mile; K: 1000 miles; F; degrees Fahrenheit; FTP; federal test procedure; SFTP; supplemental FTP **FUEL TYPE** CO **HCHO** PM **NMOG** NOx (g/mi) (mg/mi) (g/mi) (g/mi) (g/mi) CERT STD CERT STD CERT STD CERT STD CERT STD GASOLINE -0.100 0.33 3.4 0.018 0.14 15 0.02 FTP@50K TIER 2 0.0218 UNLEADED GASOLINE -0.0284 0.125 0.34 4.2 0.022 0.20 18 0.02 TIER 2 FTP@UL UNLEADED \* \* \* \* \* 50°F @4K NOx (g/mi) CO (g/mi) **FUEL TYPE** CERT STD CERT STD HWFET @ 50K HWFET @ UL 1.36 GASOLINE-COLD CO LOW OCTANE 12.5 20°F @ 50K SFTP EXHAUST EMISSION STANDARDS AND CERTIFICATION LEVELS COMPOSITE **US06** SC03 **FUEL TYPE** NMHC+NOx CO PM NMHC+NOx CO NMOG+NOx CO PM (g/mi) (g/mi) (mg/mi) (g/mi) (g/mi) (g/mi) (mg/mi) (g/mi) \* CERT @ 4K \* \* STD \* CERT \* \* \* \* + + STD \* \* \* \* @UL WHOLE VEHICLE EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS WHOLE VEHICLE EVAPORATIVE TESTING RL (g/mi) @ UL **EVAPORATIVE** 2DHS (g/test) @ UL **FUEL TYPE** 3DHS (g/test) @ UL FAMILY CERT CERT STD FEL CERT STD FEL STD 0.329 1.25 0.00 0.05 E10-EPA 0.354 1.00 HFMXR0190NBD ORVR / FUEL ONLY / CANISTER BLEED EVAPORATIVE EMISSION STANDARDS AND CERTIFICATION LEVELS **FUEL ONLY EVAP & CANISTER BLEED** ORVR (g/gallon) @ UL 3DHS RIG TEST 2DHS RIG TEST **BLEED CANISTER EVAPORATIVE** (g/test) @ UL (g/test) @ UL TEST (g/test) @ 4K **FAMILY FUEL TYPE** CERT CERT STD CERT STD STD STD FUEL TYPE CERT

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t, not applicable; #: pounds; UL: useful life; PC: passenger car; LDT: light-duty truck; LDT1: LDT<6000#GVWR,0-3750#LVW; LDT2: LDT<6000#GVWR,3751-5750#LVW; LDT3: LDT 6001-8500#GVWR,3751-5750#ALVW; LDT4: LDT 6001-8500#GVWR,5751-8500#ALVW; MDV: medium-duty vehicle; MDV4: MDV 8501-10000#GVWR; MDV5: MDV 10001-14000#GVWR; MDPV: mediumduty passenger vehicle; HDV: heavy-duty vehicle; ECS: emission control system; CERT: certification; STD: standard; FEL: family emission limit; GVWR; gross vehicle weight rating; LVW: loaded vehicle weight; ALVW: adjusted LVW; LEV: low emission vehicle; ULEV: ultra LEV: SULEV: super ULEV: ZEV: zero-emission vehicle; PZEV: partial ZEV; AT PZEV: advanced technology PZEV; TZEV: transitional ZEV; TWC/OC: 3-way/oxidizing catalyst; ADSTWC: adsorbing TWC; HAC: HC adsorbing catalyst; WU: warm-up catalyst; NAC: NOx adsorption catalyst; SCR-U or SCRC/SCR-N or SCRC-NH3: selective catalytic reduction-urea/ammonia; NH3OC: ammonia oxidation catalyst; CTOX/PTOX: continuous/periodic trap oxidizer; DPF: diesel particulate filter (active); GPF: PM filter for spark-ignited engine; HO2S/O2S: heated/oxygen sensor; WR-HO2S or AFS: wide range/linear/heated air-fuel ratio sensor; NOXS: NOx sensor; PMS: PM sensor; RDQS: reductant quality sensor; NH3S: ammonia sensor; EGR: exhaust gas recirculation; EGRC: EGR cooler; AIR/AIRE: secondary air injection (belt driven)/(electric driven); PAIR: pulsed AIR; SFI/MFI: sequential/multiport fuel injection; DFI/IFI: direct/indirect fuel injection; TC/SC: turbo/super charger; CAC: charge air cooler; F/P/\$: full/partial/partial with fines on-board diagnostic; DOR: direct ozone reducing; HCT: hydrocarbon trap; BCAN: bleed carbon canister; prefix 2: parallel; (2) suffix: series; CNG/LNG: compressed/liquefied natural gas; LPG: liquefied petroleum gas; E85: "85%" ethanol ("15%" gasoline) fuel; E10: "10%" ethanol ("90%"gasoline) fuel; A: automatic (with lockup); M: manual transmission; SA: semi-automatic transmission; CV: continuously variable transmission; SCV: selectable continuously variable transmission; AM: automated manual transmission; AMS: automated manual-selectable transmission; OT: other transmission

# 2017 MODEL YEAR: VEHICLE MODELS INFORMATION MODEL VEH CLASS ENGINE TRANS TYPE EVAPORATIVE EXH OBD PZEV TYPE

MAKE	MODEL	VEH CLASS	ENGINE (L)	TRANS TYPE	EVAPORATIVE FAMILY	EXH ECS	OBD	PZEV TYPE	
FORD	TRANSIT T150 WAGON	MDPV	3.5	SA6	HFMXR0190NBD	1	P	*	